

# HP-CAST

**HP Consortium for Advanced Scientific and Technical Computing  
Word-Wide User Group Meeting  
Scalable Computing Infrastructure (SCI) Organization**

**Hilton Portland & Executive Tower, 921 SW Sixth Avenue  
November 13<sup>th</sup> - 14<sup>th</sup>, 2009**

## **HP-CAST 13**

**World-wide User Group Conference with Participation of  
NTIG (Nordic Technical Interest Group) & HP-CAST IBÉRICA  
Draft Agenda Version 2.3**

### **Thursday, November 12<sup>th</sup> - Registration & Get Together**

<b>17:00 - 22:00</b>	<i>Registration</i>	
<b>19:00 - 22:00</b>	<i>HP-CAST Welcome Reception</i>	<i>All Attendees</i>

### **Friday, November 13<sup>th</sup> - Conference**

<b>07:30 - 22:00</b>	<i>Registration</i>
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**Morning Session Chair: Frank Baetke  
Plenum**

<b>08:00 - 08:15</b>	<i>HP-CAST Board Opening Remarks:</i> HP-Liaison HP-CAST President	<b>Frank Baetke, HP Rudolf Lohner, KIT/SCC</b>
<b>08:15 - 08:35</b>	<i>Welcome Keynote:</i> HP's Scalable Computing Infrastructure Organization (SCI)	<b>Christine Martino, HP</b>
<b>08:35 - 08:50</b>	HP HPC Directions	<b>Scott Misage, HP</b>
<b>08:50 - 09:15</b>	<i>Invited Keynote:</i> Beyond Classical HPC: Massive Scale- out System for Social Media	<b>N. N. Major Social Media Provider</b>

<b>09:15 - 09:45</b>	<b>New and Large-Scale HPC Site Updates</b>	<b>N. N., Large and New Site Representatives</b>
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<b>09:45 - 10:15</b>	<i>Break</i>	
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## HP-CAST 13

### Friday, November 13<sup>th</sup> – cont.

10:15 – 10:35	<b>AMD Processor Technology &amp; Roadmap Update</b>	<b>Jeff Underhill, AMD Bill Brantley, AMD</b>
10:35 – 10:55	<b>Intel Processor Technology &amp; Roadmap Update</b>	<b>David Scott et al., Intel</b>
10:55 – 11:05	<b>NVIDIA Technology &amp; Roadmap Introduction</b>	<b>N. N., NVIDIA</b>

11:05 – 11:50	<b><i>HP Platform &amp; Technology Trends:</i> New Nehalem- and Opteron-based High-Density Servers and Blades (G6) Servers with Integrated Accelerators Scalable Data Center Infrastructure Interconnect Update Visualization Update</b>	<b>Steve Cumings &amp; Product Managers  HP Scalable Computing Infrastructure Organization</b>
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11:50 – 12:10	<b>Multi-core Platform Performance Measurements and Analysis Across Key Applications Segments</b>	<b>Dave Field, HP</b>
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12:10 – 12:30	<b>HP-CAST Update: Competence and Collaboration Network - Structure and Future Directions</b>	<b>Frank Baetke, HP Les Kramer, HP</b>
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12:30 – 13:30	<i>Lunch</i>	
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**Session Chair: Rudolf Lohner**

### Focus Session 1: Relative Positioning of HP Storage System

**Plenum**

13:30 – 13:35	<b>Focus Session Introduction</b>	<b>David Korf, HP</b>
13:35 – 13:50	<b>HP's Parallel File System Strategy and Product Portfolio</b>	<b>Ed Turkel, HP</b>
13:50 – 14:00	<b>Lustre® Parallel File System Update and Product Positioning</b>	<b>Andy Garside, HP</b>
14:00 – 14:10	<b>IBRIX Parallel File System Update and Product Positioning</b>	<b>Patrick Osborne, HP/IBRIX</b>
14:10 – 14:30	<b>Customer Experience Update General Q&amp;A and Panel Discussion</b>	<b>All Speakers and Attendees</b>

**HP-CAST 13**  
**Friday, November 13<sup>th</sup> – cont.**

<b>14:30 – 15:00</b>	<b>SCI Cluster Management Strategy and Roadmap Update (CMU)</b>	<b>Alanna Dwyer et al., HP</b>
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<b>15:00 – 15:30</b>	<i>Break</i>	
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**Session Chair: Hugh Couchman**

**Focus Session 2: Energy Efficient HPC and Scalable Computing Solutions**

**Plenum**

<b>15:30 – 16:10</b>	<b>Progress and Challenges of Energy Efficient Scalable Computing Solutions: Multiple Lectures and Panel Discussion</b>	<b>Tahir Cader, HP N. N., Partners</b>
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<b>16:10 – 16:30</b>	<i>Invited Research Lecture:</i> <b>Challenges and Solutions for Transparent Resilience in HPC</b>	<b>Frank Mueller, North Carolina State University</b>
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<b>16:30 – 16:55</b>	<b>Scalable Computing Trends: Clouds, Hosting and HPC – Synergy or Competition</b>	<b>Office of the CTO: Scott McClellan Richard Kaufman</b>
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<b>16:55 – 17:00</b>	<b>Logistical Announcements and Updates for Saturday, Nov. 14<sup>th</sup> Adjourn for Friday</b>	<b>Rudolf Lohner, KIT Frank Baetke, HP</b>
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<b>19:00</b>	<i>HP-CAST 12 Gala-Dinner</i>	
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# HP-CAST 13 – Tutorials and SIGs

Saturday, November 14<sup>th</sup>

(Preliminary Allocation – Up to 4 parallel sessions planned)

08:00 – 09:00	<b><u>Tutorial A1:</u></b> Advances and Software Environments for Multi-core Processors	<b><u>Chair:</u></b> Dave Korf, HP Robert Stober, Platform Erik Hagersten, Acumem Michael Declerck, eXludus
09:00 – 10:00	<b><u>Tutorial A2:</u></b> Advanced Accelerator Hardware Developments	<b><u>Chairs:</u></b> Jim Bovay & Glenn Lupton, HP Bill Brantley, AMD Sumit Gupta, NVidia
08:00 – 10:00	<b><u>Tutorial B1:</u></b> A Forecast of Clouds: How HP and our Partners are Addressing Cloud Market Needs	<b><u>Chair:</u></b> Alanna Dwyer & Richard Kaufmann, HP Scott Hurst, Adaptive Comp. N. N., Platform Cathy Palmer, Microsoft
08:00 – 10:00	<b><u>Tutorial C1:</u></b> Advances in Interconnects: Focus on Infiniband, 10 GigEthernet and SHMEM Technologies – Part 1	<b><u>Chair:</u></b> Guodong Zhang, HP Gilad Shainer, Mellanox Philip Murphy, Lloyd Dickman, Qlogic
08:00 – 10:00	<b><u>Tutorial D1:</u></b> A Structured, Unified Approach to Multi-Core and Many-Core Computing	<b><u>Chair:</u></b> Michael McCool, Intel Anwar Ghuloum, Intel
10:00 – 10:30	<i>Break</i>	
10:30 – 12:30	<b><u>Tutorial A3:</u></b> Advanced Software Developments for Accelerators.	<b><u>Chairs:</u></b> Jim Bovay and Glenn Lupton, HP Jacques Philouze, Allinea Michael Wolf, PGI Chris Gottbrath, TotalView
10:30 – 12:30	<b><u>Tutorial B2:</u></b> The Evolution from Grid- to Cloud-Portals in Enterprise Technical Computing	<b><u>Chair:</u></b> Simon Lonsdale, NICE N. N., Partners
10:30 – 12:30	<b><u>Tutorial C2:</u></b> Advances in Interconnects: Focus on Infiniband, 10 GigEthernet and SHMEM Technologies – Part 2	<b><u>Chair:</u></b> Guodong Zhang, HP Peter Stultz, Aviv Cohen, Voltaire Graham Smith, BNT Shai Fultheim, ScaleMP
10:30 – 12:30	<b><u>Tutorial D2:</u></b> Cluster Management with CMU	<b><u>Chair:</u></b> Alanna Dwyer, HP Bill Celmaster, HP Sebastien Cabaniols, HP N. N., Partners

**HP-CAST 13**  
**Saturday, November 14<sup>th</sup> – cont.**

<b>12:30 – 13:30</b>	<i>Lunch</i>
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**Parallel Tracks**

<b>13:30 – 15:00</b>	<b>Accelerator SIG Session</b>	<u><b>Chairs:</b></u> <b>Jim Bovay, HP and          Jan-Philipp Weiss, KIT</b>  <b>Stephan Möhl, Mitronics          Tarel El Gazhavi, George          Washington Univ.</b>
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<b>13:30 – 15:00</b>	<b>Visualization SIG Session</b>	<u><b>Chairs:</b></u> <b>Glenn Lupton, HP          N. N.</b>
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<b>13:30 – 15:00</b>	<b>Cloud &amp; Grid SIG Session</b>	<u><b>Chairs:</b></u> <b>Marcel Kunze, KIT          Susanne Balle, HP</b>  <b>Amnon Raviv, GigaSpaces          Simon Lonsdale, NICE</b>
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<b>13:30 – 15:00</b>	<b>European Peta-scale Cluster          Computing Workshop  <i>(Attendance by Invitation Only)</i></b>	<u><b>Chairs:</b></u> <b>Hugo Falter, ParTec          Johannes Diemer, HP</b>
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<b>15:00 – 15:30</b>	<i>Break</i>
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<b>15:30 – 18:00</b>	<b>Large System SIG</b>	<u><b>Chairs:</b></u> <b>Gary Skouson, PNNL          Scott Misage, HP</b>
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<b>18:30</b>	<i>HP-CAST Closing Reception</i>	<b>All Attendees</b>
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